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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,525

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Yukimasa Nishide

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EXAMINER

WALKER, KEITH D

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

06/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/762,525	Applicant(s) NISHIDE, YUKIMASA	
	Examiner KEITH WALKER	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-22 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) 10-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9 and 25-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/21/08 has been entered.

Claims 1-3, 5-22, & 25-35 are pending in the application with Claims 10-22 withdrawn. Claims 1-3, 5-9 & 25-35 are pending examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the second plurality in the second cell" in line 19.

There is insufficient antecedent basis for this limitation in the claim. The word plurality is being interpreted to mean polarity.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 29-32 & 35 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,521,498 (Juergens).

Juergens teaches a secondary battery comprising a first and second cell enclosed in a casing. Each cell has a generally cylindrical core and a first and third wound electrode of opposite polarities. Separators are disposed between the respective electrodes (Fig. 1; 1:5-10, 2:50-60, 4:10-15). The electrode of the first polarity in the first cell has a first edge extending from an end of the first cell and the edge is curving in a first direction and a second electrode of a second polarity in the second cell has a curving edge that curves in an opposite direction such that the first and second curving edges overlap and are in electrical communication (Figs. 1, 4 & 5; 4:65-5:20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 6, 8, 9, 25-28, 33 & 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,521,498 (Juergens) in view of US Patent 6,287,719 (Bailey).

The teachings of Juergens as discussed above are incorporated herein.

Regarding claims 6, 8 & 9, the method of joining the edge portions is a product-by-process claim and even though product-by-process claims are limited by and defined

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by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (MPEP 2113). The edge portions are joined by first crimping the edge portions together with a pressure applied exterior to the case from the outside and then the edge portions are welded (Figs. 3-5; 5:50-6:25).

Juergens is silent to a second electrode of the first polarity and a fourth electrode of a second polarity in the same cell.

Bailey teaches a secondary battery with first and second cells wound around a hollow core. First and second electrodes of the same polarity are disposed concentrically around a core and are located first and second distances from the core. A third and fourth electrode of a different polarity as the first and second electrode are disposed concentrically around a core and are located third and fourth distances from the core. The third and fourth distances are greater than the first distance. The first and second cells are electrically connected through opposing polarity electrodes (Figs. 3 & 4; 2:25-40, 3:35-45, 4:40-50). The first and second electrodes are offset from each other in their direction of alignment. The housing holds the electrode assembly together and a bead helps secure the assembly for attaching a cap plate (Figs. 1 & 2; 3:30-65).

Regarding claim 25, the core is hollow and therefore is configured to route a cooling fluid there through.

The secondary battery has an insulation sheet and is housed by a cylindrical casing (Figs. 1 & 4). Separators are located between the first and second electrodes and the second distance is greater than the first and the second distance is less than the first by inverting the electrodes (Fig. 4).

The motivation to use the second and fourth electrodes of opposite polarity is to create a less expensive and space efficient multi-cell battery. This construction produces higher voltage batteries that utilize lower voltage cells (Abstract, 2:60-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the secondary battery of Juergens with the multi-cell construction of Bailey to lower the construction costs and increase the voltage of the battery.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,521,498 (Juergens) in view of US Patent 6,287,719 (Bailey) as applied to claim 1 above and further in view of US Patent 6,312,848 (Kilb).

The teachings of Juergens and Bailey as discussed above are incorporated herein.

Juergens is silent to connecting the electrode edge portions together with a ring member.

Kilb teaches using a ring member to electrically attach the edge portions of cells (Fig. 8; 3:10-20). The ring member is one of many known methods of electrically

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connecting electrodes. Using the ring member forms a mechanically firm connection for the electrodes.

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the connection means of Longhi with the ring member of Kilb to form a mechanically firm connection between electrodes.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection as required by the amendments.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEITH WALKER whose telephone number is (571)272-3458. The examiner can normally be reached on Mon. - Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K. Walker

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795